

12. The method of claim 10, wherein generating a digitized representation of the RF signal comprises:

sampling the RF signal to produce a stream of digital samples; and
framing the digital samples to produce a stream of frames.

13. The method of claim 10, wherein transmitting the digitized representation to the remote unit comprises transmitting the digitized representation over a path selected from the group consisting of a fiber optic cable and a coaxial cable.

14. A method of transmitting wireless transmissions between a base station and a remote unit, the method comprising:

generating a set of RF analog modulated channel carriers representing outbound transmissions, wherein each RF analog modulated channel carrier corresponds, in a one-to-one relationship, to a channel in a set of channels used by the remote unit;

combining the set of RF analog modulated channel carriers into a combined RF signal;

generating a digitized representation of the combined RF signal at the base station;
and

transmitting the digitized representation to the remote unit.

15. The method of claim 14, wherein transmitting the digitized representation to a remote unit comprises transmitting the digitized representation to a remote antenna unit.

16. The method of claim 14, wherein generating a digitized representation of the RF signal comprises:

sampling the RF signal to produce a stream of digital samples; and
framing the digital samples to produce a stream of frames.

17. The method of claim 14, wherein transmitting the digitized representation to the remote unit comprises transmitting the digitized representation over a path selected from the group consisting of a fiber optic cable and a coaxial cable.

18. A method of transmitting RF signals between a base station and a remote unit, the method comprising:

receiving a plurality of outbound RF signals from a network, wherein the plurality of outbound RF signals correspond to a set of channels used by the remote unit;

generating an RF analog outbound channel carrier for each channel in the set of channels used by the remote unit;

analog modulating each of the plurality of outbound RF signals onto a corresponding one of the RF analog outbound channel carriers, thereby generating a plurality of RF analog modulated channel carriers;

combining the plurality of RF analog modulated channel carriers into a combined RF signal;

generating a digitized representation of the combined RF signal at the base station;

and

transmitting the digitized representation to the remote unit.

19. A method of transmitting RF signals between a remote unit and a base station, the method comprising:

receiving a plurality of inbound RF signals from a plurality of mobile units at the remote unit;

combining the inbound RF signals into a combined RF signal;

generating a digitized representation of the combined RF signal at the remote unit;

and

transmitting the digitized representation to the base station.

20. A method of transmitting RF signals between a remote unit and a base station, the method comprising:

receiving simultaneous inbound RF signals from a plurality of mobile units at the remote unit;

combining the inbound RF signals into a combined RF signal representing the inbound RF signals in a set of channels used by the remote unit;

digitizing the combined RF signal; and

transmitting the digitized combined RF signal to the base station.

21. A method of transmitting cellular telephone transmissions between a base station and a mobile unit, the method comprising:

generating a digitized representation of a first RF signal at the base station, wherein the first RF signal is a combined analog signal representing all outbound cellular telephone transmissions for a set of channels used by a cell remote from the base station;

transmitting the digitized representation to the cell;

generating a second RF signal from the digitized representation of the first RF signal at the cell; and

broadcasting the second RF signal to the mobile unit.

22. A method of transmitting RF signals between a base station and a plurality of mobile units, the method comprising:

generating a set of RF analog modulated channel carriers representing outbound RF signals, wherein each RF analog modulated channel carrier corresponds, in a one-to-one relationship, to a channel in a set of channels used by a remote unit;

combining the set of RF analog modulated channel carriers into a first combined RF signal, wherein the first combined RF signal represents outbound RF signals;

generating a digitized representation of the first combined RF signal at the base station;

transmitting the digitized representation to the remote unit;

generating a second RF signal from the digitized representation of the first RF signal at the remote unit; and

broadcasting the second RF signal to the plurality of mobile units.